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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,623	02/22/2002	Yoichiro Tanaka	219861USOPCT	7766

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EXAMINER

PAGE, THURMAN K

ART UNIT PAPER NUMBER

1615

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/049,623

Applicant(s)

TANAKA ET AL.

Examiner

Thurman K. Page

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/25/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Status of the Application

Receipt of the Response and Applicant's Arguments/Remarks filed 06/08/04, the Information Disclosure Statement (IDS) filed 05/25/04 and the Status Request letter filed 03/04/05 is acknowledged.

Upon further consideration, the previous Non-final Office Action filed 03/10/04 is withdrawn. The following are the new grounds of rejection.

Claims 1-3 and 5-22 are pending. Claims 1-3 and 5-22 are rejected.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-3, 5-8, 10-12, 14, 15, 17, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reyes (US Pat. No. 3,405,071) in view of Deubzer *et al.* (US Pat. No. 6,251,313 B1).

Reyes teaches microcapsules and a process of making microcapsules comprising having an outer hydrophobic polymer layer grafted onto a gelled hydrophilic polymer containing an encapsulated polar solution (see reference col. 1, lines 10-42); (col. 2, line 3-35) and Examples. The hydrophilic polymer, in the internal phase, is gelled to form a microscopic particle or core containing the aqueous solution to be encapsulated. Suitable gellable hydrophils include, for example, agar agar, alginic acid and derivatives, casein, starch, locust bean gum, polyvinyl alcohol and other gellable colloids. Where alkali solutions are being encapsulated, hydrophilic colloids such as natural gum, starch and the like may be in the formulation to increase the initial water holding capacity (col. 4, lines 24-33).

Suitable hydrophobic polymers include, for example, vinyl, acrylate, styrene, polyethylene, polypropylene polymers, natural and synthetic rubbers, cellophane and cellulose derivatives. The polymeric materials should exhibit stability (col. 3, lines 20-42); (col. 4, lines 12-23).

According to Reyes, to produce microcapsules which are water-resistant or water-vapor impermeable, it is essential that the grafted monomer or polymer forming the outer surface of the microcapsule product be a hydrophobic material (col. 4, lines 1-5).

As a particular example of the process, Figure 1 demonstrates an emulsion formed in step 10 comprising a solution of gellable hydrophilic polymer and aqueous solution as the internal phase and an immiscible organic or nonpolar solvent containing a hydrophobic polymer-forming

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monomer and a hydrophobic polymer as the external phase (col. 4, lines 6-12). Likewise, Figure 2 demonstrates a technique utilizing hydrophilic materials that comprise microscopic particles of casein, agar agar, alginic acid derivatives such as sodium alginate, starch, locust bean gum, polyvinyl alcohol and like gellable colloids (col. 4, line 66 – col. 5, line 6). Example 1 at column 5 demonstrates a water-in-oil emulsion incorporating polybutene. After thoroughly mixing under nitrogen, casein and triethanolamine were added to result in casein particles containing appreciable amounts of polybutene.

Reyes do not explicitly teach the instant particle diameters. However, in the absence of showing the criticality of the instant particle diameter, it is the position of the Examiner that it is deemed obvious to one of ordinary skill in the art to determine suitable particle diameters through routine or manipulative experimentation to obtain optimal results, as these are indeed variable parameters attainable within the art. The prior art clearly recognizes and teaches microcapsules wherein hydrophilic polymeric materials are coated with hydrophobic particles.

Regarding the ‘freeze-shattering’ of the gel, no criticality is seen in the use of Applicant’s freeze-shattering of the gel since the prior art teaches obtaining a similar capsule that releases the components upon pressure. Moreover, Reyes teaches capsule formulating techniques involving the use of nitrogen (see Example 1).

Reyes teaches microcapsules formed of an outer hydrophobic polymer layer grafted onto a gelled hydrophilic polymer containing an encapsulated polar solution. Reyes teach that the coated microcapsules are used in the *paper* industry, whereby depending on the materials to be encapsulated, markings are made by application of pressure (col. 2, line 47-62). Reyes do not teach that the microcapsule is used for cosmetic applications.

Deubzer *et al.* ('313) teach a process for the preparation of microencapsulated products, such as microcapsules having shell walls of organopolysiloxane surrounding a solid or liquid core material, wherein the microcapsules are used for various applications including cosmetics, care products, coatings and paper and construction industries (see reference col. 6, lines 15-25) and Abstract. Materials to be encapsulated include water and water-soluble materials such as gelatin, agar, pectins, celluloses and the like (col. 3, lines 47-54); (col. 5, lines 57-60). The microcapsules are used in cosmetics and are comprised of particle-powder such that when pressure is applied, oily contents are released (col. 6, lines 21-46).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the coated microcapsules of Deubzer *et al.* within the microcapsules of Reyes, because Deubzer *et al.* explicitly teach a coated microcapsule formulation that encapsulates solid/liquid materials that is advantageously used for multiple applications, including cosmetic applications, as well as paper and construction industries. The expected result would be an improved, coated microencapsulated product that is conveniently employed in an array of applications for versatility of use and ease for the consumer.

Claims 9, 13, 16, 18, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reyes (US Pat. No. 3,405,071) in view of Deubzer *et al.* (US Pat. No. 6,251,313 B1) as applied to claims 1-3, 5-8, 10-12, 14, 15, 17, 19 and 21 above and further in view of Munteanu *et al.* (US Pat. No. 4,428,869).

The teachings of Reyes ('071) and Deubzer *et al.* ('313) are delineated above. While Reyes and Deubzer both recognize oil-containing pressure-rupturable microcapsules (see Reyes,

col. 1, lines 39-42 and Deubzer col. 6, lines 15-46), the references do not teach a method of applying makeup comprising applying the cosmetic to the skin and applying pressure to cause release of fluid.

Munteanu *et al.* ('869) is relied upon for the teaching of a microencapsulated fragrance composition (*i.e.*, cologne, after-shave, bath lotions) that is releasable either hydrolytically (as a result of contact with excreted sweat) or by means of application of mechanical pressure (as a result of rubbing or washing and/or normal contact between skin and clothing).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the cosmetic application techniques of Munteanu *et al.* because they teach that the microencapsulated fragrance compositions can be easily applied and released onto the skin by placing pressure on the microcapsule. The expected result would be an improved cosmetic microcapsule formulation that offers enhanced techniques for application of makeup.

Response to Arguments

Applicant's arguments filed 06/08/04 with respect to claims 1-3 and 5-22 have been considered but are moot in view of the new ground(s) of rejection.

Claims 1-3 and 5-22 have now been rejected over the references of Reyes (US '071), Deubzer *et al.* (US '313) and Munteanu *et al.* (US '869). The prior art teaches and suggests coated microcapsule formulations comprising core hydrophilic polymeric materials coated with outer hydrophobic materials. Hydrophilic materials taught include gelatin, agar agar, pectins and gums. The prior art also recognizes fluid-containing capsules that release their components upon

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application of pressure. The capsules can be used in various industries, including cosmetics. The prior art teaches the incorporation of the same ingredients, used in the same field of endeavor for a similar purpose as that desired by Applicants. Hence, in view of the prior art teachings and suggestions, the instant invention is rendered *prima facie* obvious to one of ordinary skill in the art.

Correspondence

Any inquiry concerning this communication should be directed to Thurman Page, who can be reached on (571) 272-0602. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 31, 2005

THURMAN PAGE
SUPER: TK Page ER
TECHNOLOGY 03/31/05